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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/799,951

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John W. Haim

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EXAMINER

FOTAKIS, ARISTOCRATIS

ART UNIT

PAPER NUMBER

2611

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/799,951	<b>Applicant(s)</b> HAIM ET AL.	
	<b>Examiner</b> ARISTOCRATIS FOTAKIS	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04/30/2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3- 4, 6 - 8, 12 - 16 and 18 -19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3- 4, 6 - 8, 12 - 16 and 18 -19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/23/2009</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3 – 4, 6 - 7, 12 – 15 and 18 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giancola et al (2006/0014507) in view of Husted et al (US 6,721,547)

Re claims 3 and 12, Giancola teaches of a receiver comprising: a gain control loop (Fig.4) configured to process samples of a data signal received with respect to a selected timeslot (Paragraph 0019) of a time frame (Paragraph 0017) including; a gain control (#17, Figs.3 and 4) for applying a gain factor (*gain setting number*) to samples of the data signal (Paragraphs 0023 - 0025); a saturation detection circuit (#34, Fig.3) configured to process samples from the gain control in selected groups to determine a number of samples within a group which exceed a saturation criteria (Paragraphs 0019 - 0021, Fig.3); a gain control adjustment circuit (Fig.4) operatively associated with said gain control and said saturation detection circuit to adjust the gain factor (*gain setting number*) applied by the gain control based in part on group saturation numbers (#input #36, Fig.4) determined by the saturation detection circuit while processing the data signal received with respect to the selected timeslot of time frame (Paragraphs 0023 – 0025, Figs.3 and 4) such that: an initial gain factor (*gain setting number*) is applied to a first group of samples of the data signal received in the selected timeslot for which a first group saturation number is determined by the saturation detection circuit (Paragraph

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0025), a gain factor adjusted based in part on the first group saturation number is applied to a second group of samples of the data signal received in the selected timeslot for which a second group saturation number is determined by the saturation detection circuit (Paragraph 0024, Lines 14 -17 and Paragraph 0025), and a gain factor (gain setting number, Fig.1, *different from the one above*) adjusted based in part on the second group saturation number is applied to a third group of samples of the data signal received in the selected timeslot (AGC loop, Fig. 4, *The AGC loop continuously tracks and adjusts the gain for ever group of samples*); and comparing the number of samples within a group of samples which exceed the saturation criteria to a threshold number. However, Giancola does not specifically teach of the use of an erase circuit to compare the number of samples within a group of samples which exceed the saturation criteria to a threshold number and erase the group of samples if the number of samples within the group which exceed the saturation criteria is greater than the threshold number.

Husted teaches of comparing the number of samples within a group of samples which exceed the saturation criteria (adcsat\_thr, Fig.6) to a threshold number (A/D maximum). However, Husted does not specifically teach of erasing the group of samples if the number of samples within the group which exceed the saturation criteria is greater than the threshold number. Husted teaches of the A/D maximum threshold which is the maximum saturation that can designated to the device (Col 6, Lines 10 - 51).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have compared the number with a threshold (A/D maximum

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threshold or A/D minimum threshold) so as to decide whether the data segment can be recovered (below A/D maximum threshold) or erased due to severe saturation (above A/D maximum threshold) being impossible to process.

Re claims 4 and 13, Giancola teaches of the gain control loop configured to process a plurality of samples of the data signal received in the selected timeslot between processing said first group of samples and said second group of samples and to process a plurality of samples of the data signal received in the selected timeslot between processing said second group of samples and said third group of samples (see rejections of 1 and 12).

Re claim 14, Giancola teaches of the gain control adjustment circuit configured to make gain factor adjustments using a power correction factor (#36, Fig.4).

Re claims 6 and 15, Giancola teaches of the gain control adjustment circuit is configured to make gain factor adjustments using a power correction factor (#36, Fig.4) that is based in part upon a group saturation number (Paragraph 0019) determined by the saturation detection circuit (#34, Fig. 3).

Re claims 18 and 19, Giancola teaches of a wireless transmit receive unit (WTRU) comprising the receiver (Paragraph 0002, *It is inherent that a CDMA radio*

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*receiver would be part of a transceiver to establish bi-directional communication with the handset or basestation).*

Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giancola and Husted in view of Zamat (US 6,314,278).

Giancola and Husted teach all the limitations of claims 3 and 12 as well as the gain control adjustment circuit is configured to make gain factor adjustments using a power correction factor that is based in part upon a group saturation number determined by the saturation detection circuit (see claim 7 and 15). Giancola and Husted do not specifically teach of the use of a lookup table to receive the determined number and to output the power correction factor.

Zamat teaches of adjusting gain in a receiver using received signal sample values (title of invention and Abstract). the gain control adjustment circuit is configured to make gain factor adjustments using a power correction factor that is based in part upon a group saturation number determined by the saturation detection circuit by using a lookup table ( table of Fig.4) to receive the determined number and to output the power correction factor (Fig.4, Col 5, Lines 15 – 45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a look-up table to apply a power correction factor according to the number of samples that have been saturated.

***Response to Arguments***

Applicant's arguments filed April 30, 2009 have been fully considered but they are not persuasive.

Applicants respectfully submit that there is an in appropriate use of official notice. The examiner must provide specific factual findings predicated on sound technical and scientific reasoning to support his or her conclusion of common knowledge.

Examiner disagrees of Applicants characterization the official notice taken. The Examiner has only taken an official notice on the erasing the group of samples and not for the threshold comparison. Husted teaches of comparing the number of samples which exceed the saturation threshold with an A/D threshold (A/D maximum threshold or A/D minimum threshold) so as to decide whether the data segment can be recovered (below A/D maximum threshold or above A/D minimum threshold). As discussed above, the reference does not refer to erase the data that has been saturated and cannot be recovered. Examiner submitted that it is well known in the art to erase data that would be impossible to process. Bad data or severely distorted data or unrecovered data that is of no use in the system can be easily erased/deleted. It is very common to delete bad data that is not required or used by the system. Examiner has provided three references (US2005/0018644-(Paragraph 0003), US2003/0103604-(Paragraphs 0178 - 0179, 0206) and US6,781,981-(Col 13, Lines 60 – 65)) to provide as proof that bad data is deleted.



***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristocratis Fotakis whose telephone number is (571) 270-1206. The examiner can normally be reached on Monday - Thursday 6:30 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aristocratis Fotakis/

Examiner, Art Unit 2611

/Shuwang Liu/

Supervisory Patent Examiner, Art Unit 2611